

Glenn Howland  
5/19/01  
Disclosure Doc# 471703

**TITLE:**

**Reusable Plastic Bottling System for Detergent Soaps**

FOIA b 7 - D

5/19/01  
1:05 PM

## Title Page-Reusable Plastic Bottling System

This Patent project has originated from my Thesis Paper "Management Solutions To Reduce Plastics In the Waste Stream." My Thesis was completed in December of 1989 and received an A+ for a final grade. The paper also received two excellent recommendations from my advisors who were also instructors at the University of Santa Barbara. The thesis investigated various management approaches for reducing plastic products from the waste stream. Waste Stream basically refers to public landfills which is of course where the waste ends up if not recycled, reused, or degraded. Since my Thesis I have thought about and investigated recycled plastic materials, such as bottles, and decided to write a proposal. This proposal involved reusing plastic bottles via a hot water treatment system that could filter and reclaim the water. This idea was not pursued due to the apparent lack of practicality. Most notably, collecting the empty bottles and transporting them to a cleaning facility.

Basically originating from both my thesis and proposal studies this Patent attempt as represented by the above title is more specialized to detergents and claims to save the detergent companies end-use and operating costs. This type of bottling system can do this in two primary ways: 1 cutting virgin and recycled resin costs by using refillable 30 gallon drums (HDPE) which are filled at the bottling facility and reusing the 3.78 and 2.95 liter bottles at the supermarket. The bottles will of course be refilled by the consumer using 30 gallon drums. 2 proper labels will need to be applied to bulk drums and refillable bottles only, not every bottle. This could reduce costs significantly. The bottle labels could read: **"Refillable Detergent Bottle." "Do Not Discard." "Liquid Detergent Only."**

This title page represents a brief synopsis of the disclosure document. The equipment set-up and organization is described on the following pages.

ssn # 5980

**Reusable Plastic Bottling system-An explanation**

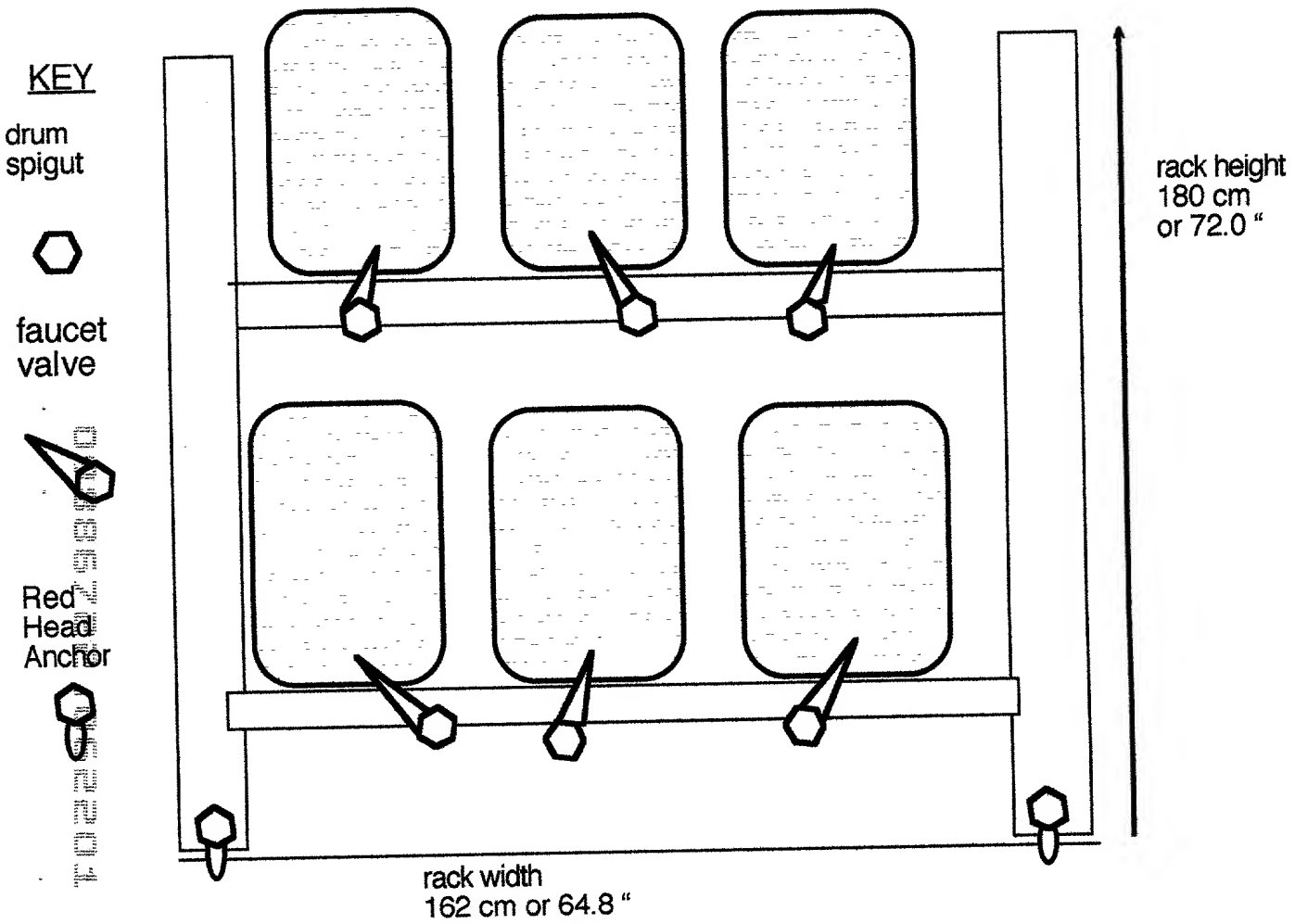
This system will be set up in the supermarket to reduce the costs of recycling plastic resins for the detergent industry. The goal of the project is to reduce costs of recycled post consumer resin.

The system will be constructed using metal racks supported by red head anchors. these racks( two total) will hold five to six thirty gallon drums with valve faucets attached. The poly drums will be filled with laundry detergent. Each drum will weigh approximately 240 pounds. Consumers will save their HDPE soap containers for refill. To refill a container a consumer will hold an empty bottle under a faucet and open the valve. All drums need to be marked with proper labels describing the soap brand, manufacturer, and ingredients. Drums can be raised to the proper height by using pallet jacks(5000 lb capacity). Drum parameters for 30 gallons are as follows: Height 65.0 cm ( 26.0") x width/diameter 32.0 cm (12.8 ") A manufacturer can also reduce costs by not having to label the numerous plastic detergent containers. The amount of this potential cost savings for labeling will be determined by the manufacturer and/or distributor.

The reusable plastic containers will be clearly marked **"Do not Discard! Refillable Detergent Bottle."** "Please Return Me for A Refill!" A label needs to be affixed on the drum reminding consumers to **turn off the faucet.**

The next page (p. 2) shows a diagram of the drum\rack bottling system

# DRUM/RACK DIAGRAM



- > Drum type: Poly
- > Rack type: Galvanized Steel or Aluminum Alloy
- > Fastener type: Red Head Anchor
- > Rack Height and Width may vary

Glenn Howland  
ssn 570-73-5980  
Disc. doc # 471703